

a crematorium

Arch
Moss
1885



".....Thus oxen, mules, in waggons straight they put,
Went forth, and an unmeasur'd pile of sylvan matter cut;
Nine days employ'd in carriage, but when the tenth morn shin'd
On wretched mortals, then they brought the bravest of his kind
Forth to be burned. Troy swam in tears. Upon the pile's most height
They laid the body, and gave fire. All day it burn'd, all night.
But when th' elev'nth morn let on earth her rosy fingers shine,
The people flocked about the pile, and first with gleaming wine
Quench'd all the flames. His brothers then, and friends, the snowy bones
Gather'd into an urn of gold, still pouring out their moans.
Then wrapt they in soft purple veils the rich urn, digg'd a pit,
Grav'd it, built up the grave with stones, and quickly piled on it
A barrow.....

.....The barrow heap'd once, all the town
In Jove-nurs'd Priam's court partook a sumptuous fun'ral feast,
And so horse-taming Hector's rites gave up his soul to rest."

from the ILIAD:
Chapman's rhymed translation.

overleaf:
photograph by Lick Observatory.

introduction

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A CREMATORIUM

iii

Submitted in partial fulfilment
of the requirements for the de-
gree, Master of Architecture.

September 1, 1955.

William Beckley Hayward

L. B. Anderson, Head
School of Architecture
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216 Beacon Street
Boston 16, Mass.
September 1, 1955

Pietro Belluschi, Dean
School of Architecture and Planning
Massachusetts Institute of Technology
Cambridge, Massachusetts

Dear Dean Belluschi:

In partial fulfilment of the requirements for the degree, Master of
Architecture, I herewith respectfully submit this thesis entitled,
A CREMATORIUM.

Very truly yours, *W. B. Hayward*

William Beckley Hayward *W. B. Hayward*

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Arch - Nov. 22, 1955

ACKNOWLEDGEMENTS

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I wish to express my thanks for the aid extended to me by:

The cemetery and crematorium staff of:

Mt. Auburn Cemetery, Cambridge, Mass.
Forest Hills Cemetery and
Jamaica Plain Crematory, Boston, Mass.
Woodlawn Cemetery, Everett, Mass.
Newton Cemetery, Newton, Mass.

William H. C. Walker of World's End Estate, Hingham, Mass.

Lewis W. Perkins and Associates, Engineers, Hingham, Mass.

J. Walter Roth (M. of Arch., 1952) for his helpful thesis:
"A Cemetery Proposal for Cooperating Municipalities"

abstract

Submitted by William Beckley Hayward in
partial fulfilment of the requirements
for the degree, Master of Architecture.

School of Architecture and Planning
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A crematorium must have a special character. Launching into the field of design, opened by this recently repopularized amenity, the author of this project has given special attention to this aspect of the theme. A succinct historical and technical introductory section shows the extent of precedent, which in this country is clothed in neo-gothic forms, but is more happily expressed in the Scandinavian neo-empiricism. Working with this knowledge he has utilized every latent resource of the site, a quiet peninsula rising out of Hingham Bay, planted and landscaped to Olmstead's designs. Sinking the complex of buildings and open forecourts into an enclosed artificial hollow at the brow of a hill, he has manipulated the spaces so that they fall into a general pattern to be experienced as a setting to a processional movement, and at the same time never showing so much of it to be overpowering to people in states of emotional stress. Accentuating the use of natural and robust materials, he has achieved a synthesis of the fusion of nature and the durable artifact.

history

Cremation was a common practice among the pre-historic Aryan races. These peoples burnt their dead but their predecessors, the long-barrow people..the Iberians, buried their dead lying on the side in a sitting position. In some Aryan burial grounds (round barrows) the urns containing the ashes of the departed are shaped like houses, and these represent rounded huts with thatched roofs. Although the pre-historic Aryan never used stone for house-building; he did, however, make a sort of stone house in the center of the great mounds in which he buried the ashes of the illustrious dead. He may have learned this custom from his Iberian neighbors and predecessors (of the megalithic culture) who were responsible for such temples as Stonehenge in Wiltshire or Carnac in Brittany. The concluding passage of the "Iliad", an early form of which was probably recited by 1000 B.C., describes very exactly the making of a pre-historic barrow (quoted on frontispiece). There remains also an old English saga, "Beowulf", made long before the English has crossed from Germany into England, which winds up with a similar burial. The preparation of the pyre is first described.

It is hung around with shields and coats of mail. The body is brought and the pyre is fired, and then for ten days the warriors built a huge mound to be seen from afar by the traveller. The Aryan races who peopled, by successive immigrations, most of Europe; carried the custom of cremation to India where it is still practiced today. It was once the ritual in India for the wife of the deceased man to throw herself onto the burning funeral pyre, and many early Indian poets dwelt upon this romantic theme. Cremation was transmitted, as a practice, from generation to generation and from civilization to civilization -- the Celts, Teutons, Hindus, Persians, Greeks, and Romans, in whose literature we find many references to the "sacred flame" and their belief in its purifying power. In Athens and Rome, burning on the pyre was the general rule well into the Christian era. Because, however, of the growing extravagance of funeral rites and the scarcity of fuel, the practice became less popular -- a trend accentuated by the rise of the doctrine of the resurrection of the physical body and the plight of the early Christians who had to resort to the secrecy of earth burial in order to avoid persecution and interference with their religious rites. Thus did an ancient practice which was common in nearly all civilized countries except Egypt, Judea, and China, gradually fall into disuse. ¹

It was not until the middle of the 19th century that the revival of cremation began prominently to be advocated in Europe by distinguished physicians and chemists. Impetus was given particularly by the Italians: Brunetti, Polli, and Gorini, who conducted scientific experiments and developed an improved type of incineration chamber in the decade commencing 1869. Societies for promoting cremation were

organized as early as 1874, and by 1880 two incinerators were in operation in Milan. In the United States, Dr. F. Julius Le Moyne erected in 1876 a private crematorium at Washington, Pa., but it was not until late in 1884 that a crematorium was opened to the public at Lancaster, Pa., to be followed by two in New York State the next year. Mt. Auburn was the first New England cemetery to build a crematorium, inaugurating service in April 1900, or less than seven years after the Massachusetts Cremation Society began operations in Boston in December, 1893. Forest Hills Cemetery followed suit and within a few years was also offering cremation services. In the past decade, crematoriums have also been built in Newton and Everett, bringing the total today to four in the Greater Boston area. With nearly 300 crematoriums in the United States in 1955, the returning practice of cremation has grown into general acceptance.²

¹ H. G. Wells, The Outline of History, Garden City, N. Y., Garden City Publishing Co., Inc., 1949.

² Mt. Auburn Cemetery, Columbaria at Mt. Auburn Cemetery, Cambridge, Mass., Mt. Auburn Cemetery, 1939.

philosophy

Whether the author of this thesis approves morally of the practice of cremation is beside the point. He has chosen the subject as an exercise to stimulate spirit in architecture. Suppressing personal prejudices, biases, and sympathies; the approach to the report has been as objective as is humanly possible. Nevertheless, the architect must certainly be aware of the emotions of man in such a project. Man has his trials, his joys, and his travails, and then comes death...the enigma of all time. Theories, beliefs, superstitions, convictions, and rationalizations, have come and gone; and still man ponders. He meets the blunt face of death head-on in the loss of a loved one. In most of civilization today, the bereaved is solaced and consoled. The disposal of the body of the deceased is accompanied by ritual, music, pageantry, and expressions of sympathy. Sorrow is the atmosphere; remembrance and hope the passwords. An architecture encompassing this scene must give breath to the mood, but gently so as to create tranquillity and not exuberance. The keynote is subtlety. These excerpts from an appraisal of

Gunnar Asplund's Woodland Crematorium of Stockholm may serve to illustrate:

" The peace that passeth all understanding, he has succeeded in bringing to life in outstanding fashion, at least on the exterior of the building. It is perhaps the absolute absence of all dynamic elements, the avoidance of all contrast effects, the deliberate elimination of the border lines between bearing and resting parts that have produced this effect of something unreal, of an exalted calm not belonging to life on earth.....The Woodland Crematorium, it is true, in it's outer form is severe, apparently even Spartan, but it is an extremely aristocratic restraint." ¹

The author has endeavored to divine these intangibles so as to better express the finite ---- for with these stones we honor our dead.

¹ Holmdahl, Lind, and Odeen; Gunnar Asplund, Architect, Stockholm, Svenska Arkitekters Riksförbund, 1950.

PROTESTANT.....Most sect have no restrictions
as to cremation.

ROMAN CATHOLIC.....The practice of cremation is
forbidden to Catholics, except
in time of plague or extreme
catastrophe.

JEWISH.....An Orthodox or Conservative Jew
may not be cremated. This is not
due to doctrine prohibiting such;
but Jewish law dictates burial
within 24 hours after death, con-
flicting with the 48 hour clause
(see ¹ of page 12) required by
Massachusetts State Law.

data

As practices and customs concerning cremation vary from nation to nation, state to state, from city to city, and from crematorium to crematorium; generalizations in research are impossible. Consequently, a particular institution has been selected -- Mt. Auburn Cemetery -- as a case study, for the sake of both convenience and statistical simplicity. Other crematoriums have of course been mentioned, usually for the purpose of comparison. The design portion of this thesis has been based fundamentally on data culled pertaining to this well established organization, except in such cases as modern technology or dissimilarity of program may alter the customary or traditional.

CHAPELS:

Bigelow Chapel has a capacity of 125 persons, Story Chapel a capacity of 300; both have a family room off to the side and screened from the congregation. These chapels are adequate for present needs.

Each family room has a toilet which it shares with the chapel vestry.

Both chapels have an organ and choir loft, the organist and the choir being a separate service and not included in the chapel service charge.

Public rest rooms are located in the administration building at the Mt. Auburn Street entrance, and in the rest house near the south entrance.

CREMATION FACILITIES:

Mt. Auburn has four cremation chambers, or retorts, (see note) located beneath the chapel. They are fired by oil, although in newer retorts gas is used, and temperature of 2800° F. are reached. The retorts are constructed of brick and have ornamental bronze doors.

Note: These have proved adequate. In one rare instance, nine bodies were cremated in one day - using only three retorts. Forest Hills Cemetery, however, has eight retorts; Woodlawn and Newton Cemeteries each have four.

There is an air intake and blower system in connection with the cremation chambers to purify the air and to provide draft for the retorts.

¹ Proprietors of the Cemetery of Mt. Auburn, Annual Report, 1951, Cambridge, Mass., Mt. Auburn Cemetery, 1952.

There is an attendant who supervises cremation; and two assistants, one of whom usually handles the servicing of the chapel.

The service area has: an office for the attendant, a toilet for the staff, a work area for cleaning cremated remains and inurnment, small storage room, and utility room.

PARKING:

When services are held in Bigelow Chapel, parking is needed for about 60 automobiles. These are parked along the drives near the chapel. There are always policemen in attendance to give directions to the chapel, one to assist the parking.

MEMORIAL URNS:

The ashes of the deceased are delivered to the relatives in a small cardboard container; all urns being purchased independently, although usually from the cemetery administration.

Because of its attractive lustre or patina and its resistance to continued atmospheric action, bronze has been the preferred metal for inurnment of cremated remains since 1200 B.C. when it was first used for this purpose. However, copper containers and marble urns may be purchased.

The cemetery is equipped to engrave urns.

COLUMBARIA:

Columbaria are provided above the side-aisles of both Bigelow and Story Chapels, offering a selection of marble niches with glass or bronze fronts.

Some niches have bronze panels in front and contain from 2 to 6 urns, with each panel having room for several inscriptions; the others have glass fronts and a capacity of 1 to 3 urns (the design of which must be approved by the cemetery administration), the commemorative inscription being cut on the urn itself.

In the administration building, an urn vault is available for either temporary or permanent deposit of urns. This vault has open stone shelves instead of niches, and is used mostly for temporary storage.

Perpetual care is included in all columbaria prices.

INTERMENT:

Mt. Auburn provides a Memorial Urn Garden, having bronze markers flush with the ground. Grave lots are also provided for urns.

Concrete vaults and brick graves are available. Furthermore, concrete or brick crypts may be had to protect urns deposited in lots.

Concrete sectional boxes are required.

PERPETUAL CARE:

Since 1876 the purchase price of a lot has included the sum required to provide for perpetual care of the grass. Any memorials, plantings, or other structures subsequently placed on the lot are not, however, under perpetual care unless covered by additional contracts.

The body of the deceased is always sent to a mortuary before cremation. At this point there may be many variations in procedure. A funeral service may be held in a Boston church or chapel, or perhaps in another city or state. Since there are no crematoriums in New Hampshire, many bodies are driven to the Boston area for cremation. Occasionally a small funeral service is held at Bigelow Chapel, Mt. Auburn Cemetery, even though another service has been held elsewhere. And sometimes, only a few members of the immediate family may come to witness the cremation, with or without a previous formal service. At present, Mt. Auburn Cemetery estimates that only about 50 percent of the cremations have been preceded by a service in one of their two chapels.

If the funeral service is to be held in the Bigelow Chapel, the congregation gathers at the appointed time without a cortege, the body arriving via hearse from the mortuary some two to three hours before the scheduled time for the service. The funeral director arrives for the service with the congregation, as do the organist and the choir. If there is an organist or choir, or both, they proceed to the balconies over the side-aisles by a stairway located near the entrance. The funeral director retires to the vestry and the family to the family room, both located in one of the side-aisles. After the completion of the funeral, the casket is wheeled on its catafalque to a nearby elevator and lowered to the retort room below. The immediate family may then go downstairs to view the cremation, although this does not seem to be a common practice.

The casket is always brought into the chapel or the retort room through the main chapel entrance, unless a funeral is in process in which case

the casket may be carried down to the retort room by an exterior ramp at the rear of the building.

The body, before cremation, must be viewed by a Massachusetts Medical Examiner. There is also a time-lapse clause; according to law:

"The body of a deceased person shall not be cremated within 48 hours after his decease unless he died of a contagious disease,....etc... provisions for examination of legal burying permit, etc., before cremation is allowed to commence."¹

After removal of metal handles and the name plate from the coffin, it is placed into the retort without any disturbance of the body.

Incineration is by means of a clean flame augmented by a large quantity of oxygen. In 1 1/2 hours, the body has been reduced to pure bone and mineral ash. The casket, etc., meanwhile have been consumed and most of it has been passed off as invisible gases. The intensity of the draft in the retort is ingeniously regulated so the remaining lighter wood ashes from the coffin are blown aside, allowing the heavier body ash to fall into a special trough for collection. The average weight of the ashes from a cremated body is about six pounds.

The ashes are ordinarily removed from the collection trough several hours later, but if necessary they may be delivered in about 2 1/2 hours after the body has been received. Both of these schedules may be shortened considerably with the newer systems of incineration. The ashes are then taken to the work-room where magnets are used to

¹ Massachusetts General Laws -- Section 44, Chapter 114.

pick out the nails, other pieces of metal scrap, etc.; and they are then put into a cardboard container.

If the family has waited for the remains, in the administration building lounge or in the cemetery gardens, the container is then delivered to them (or to the legal guardian of the remains). At Mt. Auburn Cemetery, relatives seldom wait, probably due to poor facilities, but come back some three or four days later. After cremation Mt. Auburn will hold the ashes in its vault, in the administration building, for three months without charge.

The cremated remains may then be placed into an inscribed urn and then taken to the vault, one of the columbaria, placed in the Memorial Urn Garden, or buried in a grave lot (where another short burial service may be held). There are, however, occasions when the family prefer to take the inurned ashes to the family residence, or to sprinkle them over water, wood, mountain, etc.

STATISTICS FROM MT. AUBURN CEMETERY

14.

¹ INTERMENTS (1951) at Mt. Auburn Cemetery.....538

CREMATIONS (1951) at Mt. Auburn Cemetery.....488

OF THE 538 INTERMENTS:

(A) bodies.....358

(B) cremated remains.....180

total = 538

CREMATED REMAINS TO:

(A) private lots.....93

(B) memorial lots.....1

(C) single graves.....5

(D) memorial grounds.....19

(E) private niches.....54

(F) urn vault.....8

total = 180

In 1954, there were 496 cremations at Mt. Auburn Cemetery. This is about as expected since new crematoriums have been built in the Greater Boston area, lowering Mt. Auburn's 1939 peak year.

Year: 1901 = 119 cremations

1939 = 722 cremations

1951 = 488 cremations

1954 = 496 cremations

Other Boston crematoriums record approximately:

Forest Hills' Jamaica Plain Cremetory.....800/year

Everett's Woodlawn Cremetory.....200/year

Newton Cemetery.....250/year

¹ From Mt. Auburn Cemetery's Annual Report for 1951.

INTERMENT:

Interment in ground of cremated remains ranges from 15 dollars to 23 dollars, depending on the time of the year.

Interment in niches is 5 dollars.

Interment in urn vault is 3 dollars.

COST OF CREMATION AND RECORD:

From 25 dollars for infant to 50 dollars for adult.

Medical examiner's...7 dollars.

USE OF CHAPEL (for 2 1/2 hours):

Weekdays.....25 dollars.

Saturdays.....30 dollars.

Holidays.....30 dollars.

Holidays with interment elsewhere.....40 dollars.

¹ Schedule of Interment and Cremation Charges, Cambridge, Mass.,
Mt. Auburn Cemetery, April 1949.

SCHEDULE OF FEES: ¹

CREMATION LOTS:

Basic price range = 325 - 625 dollars.

(Double normal number of remains
permitted at 25 dollars / remains).

SMALL CREMATION LOTS: (called "Memorial Urn Garden")

2 remains limit = 125 - 140 dollars.

Note: The above charges include perpetual care of graves.

SPACE IN THE COLUMBARIA:

From 75 dollars for 1 remains,

To 350 dollars for 6 remains.

SPACE IN THE URN VAULT:

Single urn (7" or less in diameter) = 40 dollars.

Double urn (over 7" in diameter) = 60 dollars.

PRICES OF URNS:

From 15 dollars for copper

And 22 dollars for marble,

To 336 dollars for bronze.

Note: Interment of cremated remains requires a sectional concrete
crypt to receive receptacles, preventing settling of grave bed.

Average cost is about 20 dollars.

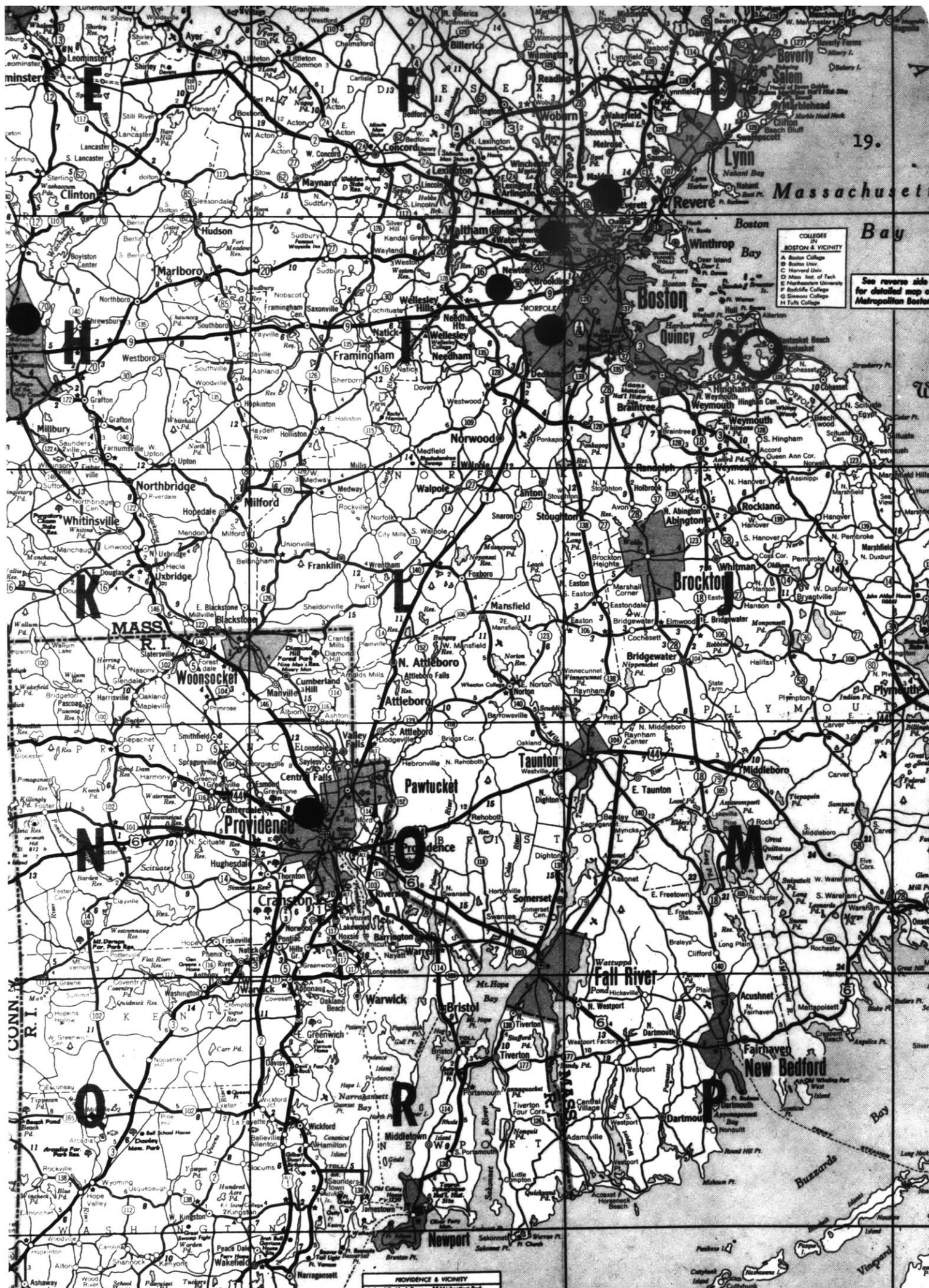
¹ Schedule of Burial Plot and Niche Prices, Cambridge, Mass.,
Mt. Auburn Cemetery, October 1949.

site



Worlds' End Estate

The site selected, World's End Estate, Hingham, Mass., is in some ways an arbitrary choice. Its location in respects to Greater Boston, and to New England, are ideal for a crematorium proposal. With the existing four crematoriums in Boston (see map..page 19.), and one in Worchester, the southeastern section of Massachusetts seems lacking in such facilities. There is a crematorium in Providence, however, the proposed Hingham site would service most of Massachusetts eastward from U. S. Highway 1 to the tip of the Cape. This area includes significant communities: Quincy, Braintree, Weymouth, Hingham, Randolph, Brockton, Plymouth, etc. The proposed crematorium would also, naturally be available to Boston. For chapel services, the drawing area would not extend beyond the one-hour transportation arc (all of the above are located in this area), but the entire southeastern section of the state would use such an establishment for cremation.



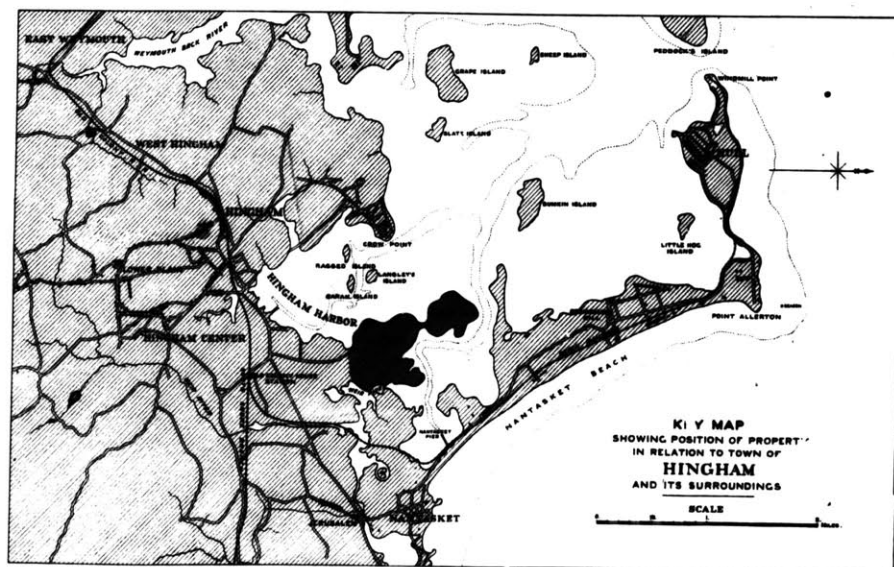
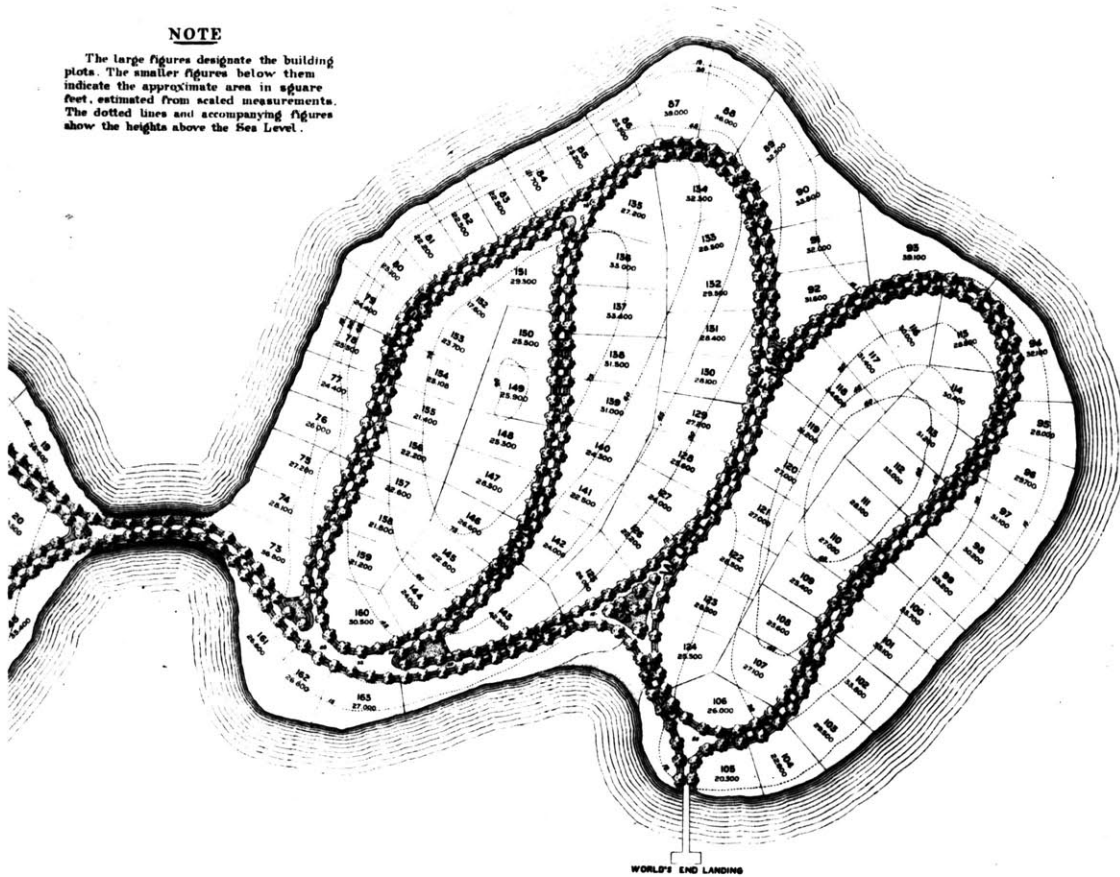
World's End Estate forms a dumb-bell shaped peninsula extending almost two miles into Hingham Harbor with nearly five miles of shore line on the Harbor and Weir River. Its rolling hills command distant views southward over Hingham Harbor and Cohasset woodlands, westward across the Harbor toward the Blue Hills, and northward and eastward to the North Shore and the Atlantic Ocean (see photo..page 17.). For the purposes of this project, only the most remote portion of the estate is utilized; it has been assumed that the rest of the property will eventually be sub-divided into residential plots. The entire property comprises 425 acres, the crematorium site being about 150 acres of the tract. The site (see survey..page 21.) is almost an island, being connected to the mainland and the rest of the estate by a narrow bar. The topography is somewhat camel-humped; two picturesque hills, one rising to an elevation of 92 feet above sea-level, overlook the harbor and surrounding islands. The valley is serene and dense with foliage. World's End was landscaped by the Olmstead Brothers in 1885, it's tree-lined roads and grounds being carefully maintained as a private park. For over sixty years it has been unsurpassed as a fine old country estate; its quiet rural setting and convenience to the residential town of Hingham is only fourteen miles from the center of Boston.

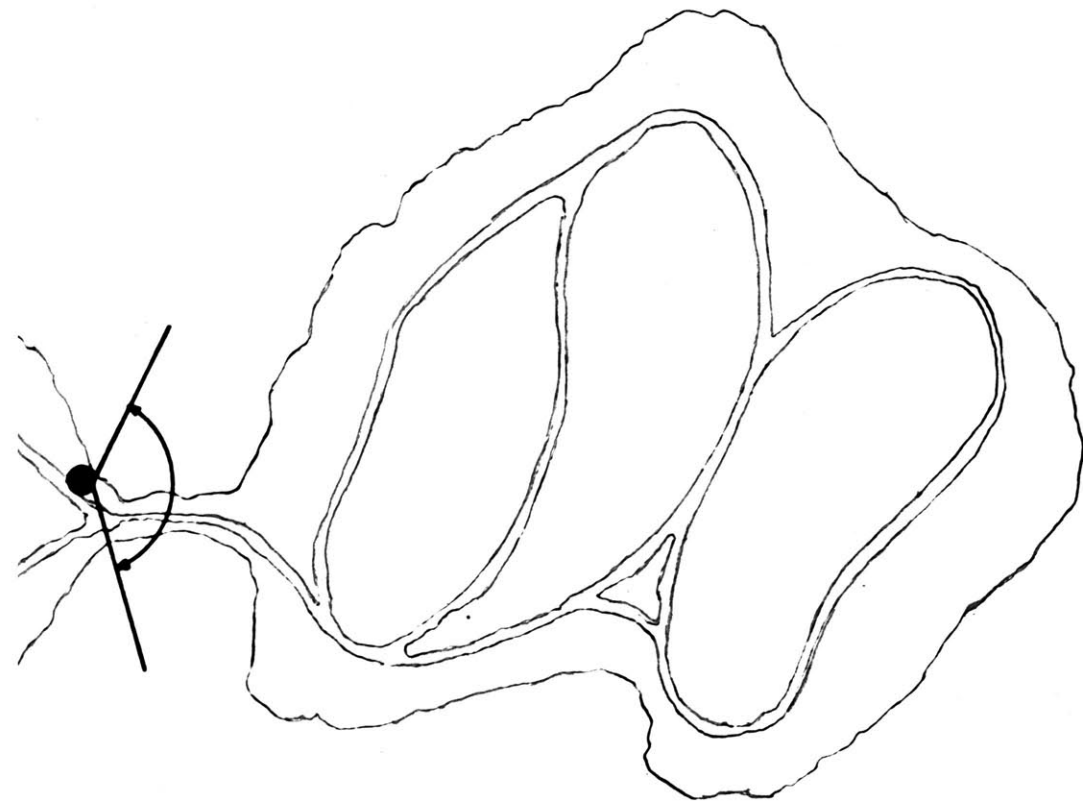
NOTE:

The following survey (page 21.) from general subdivision plan. F. L. Olmstead & Company, Landscape Architects; Brookline, Mass.; dated 1890. Therefore, landscaping has changed since survey and is now much more extensive.

NOTE

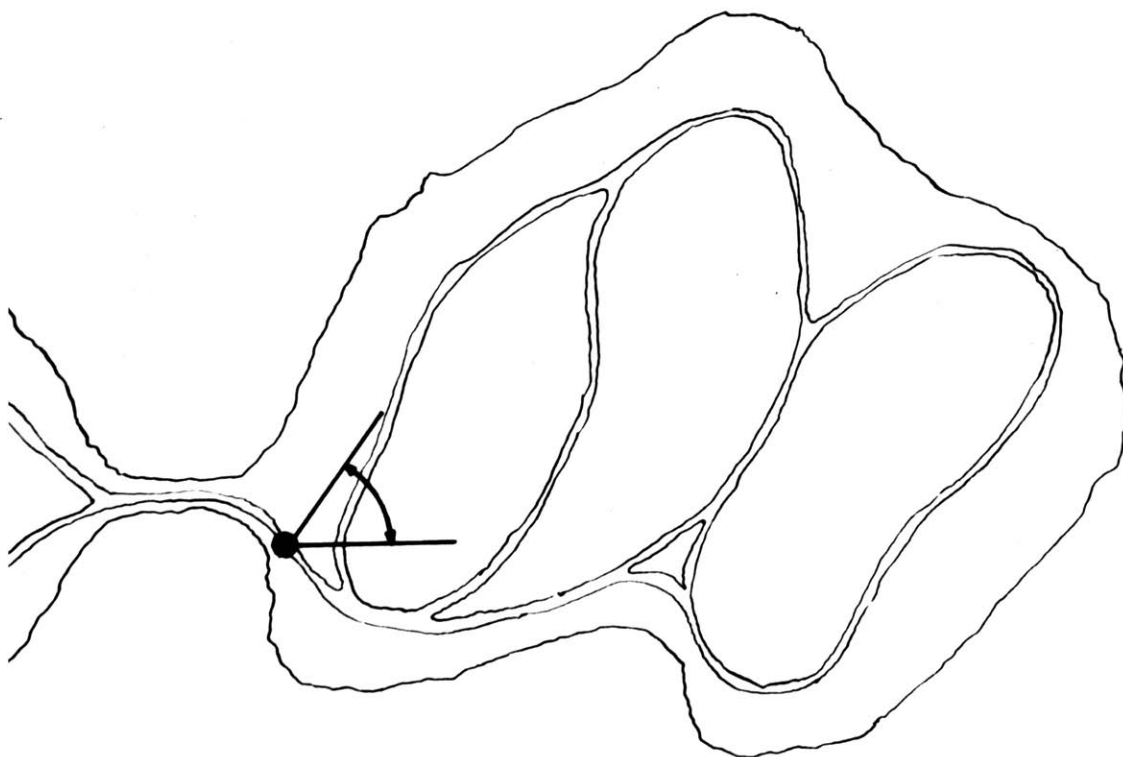
The large figures designate the building plots. The smaller figures below them indicate the approximate area in square feet, estimated from scaled measurements. The dotted lines and accompanying figures show the heights above the Sea Level.





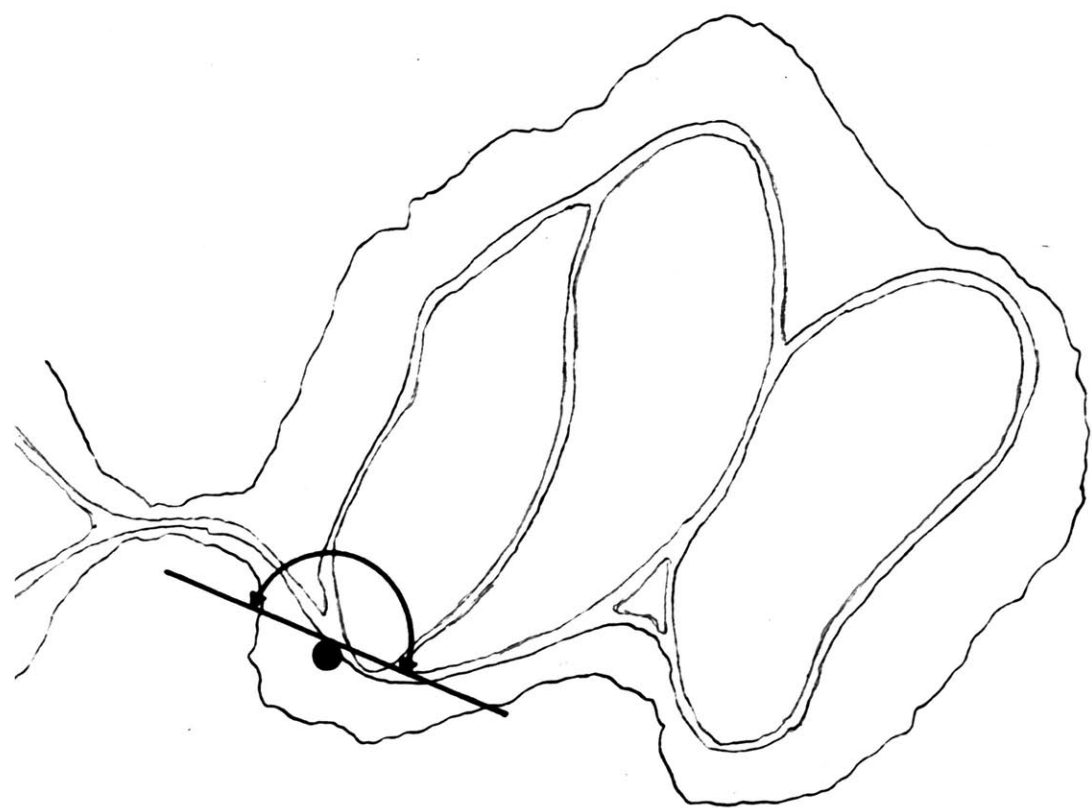


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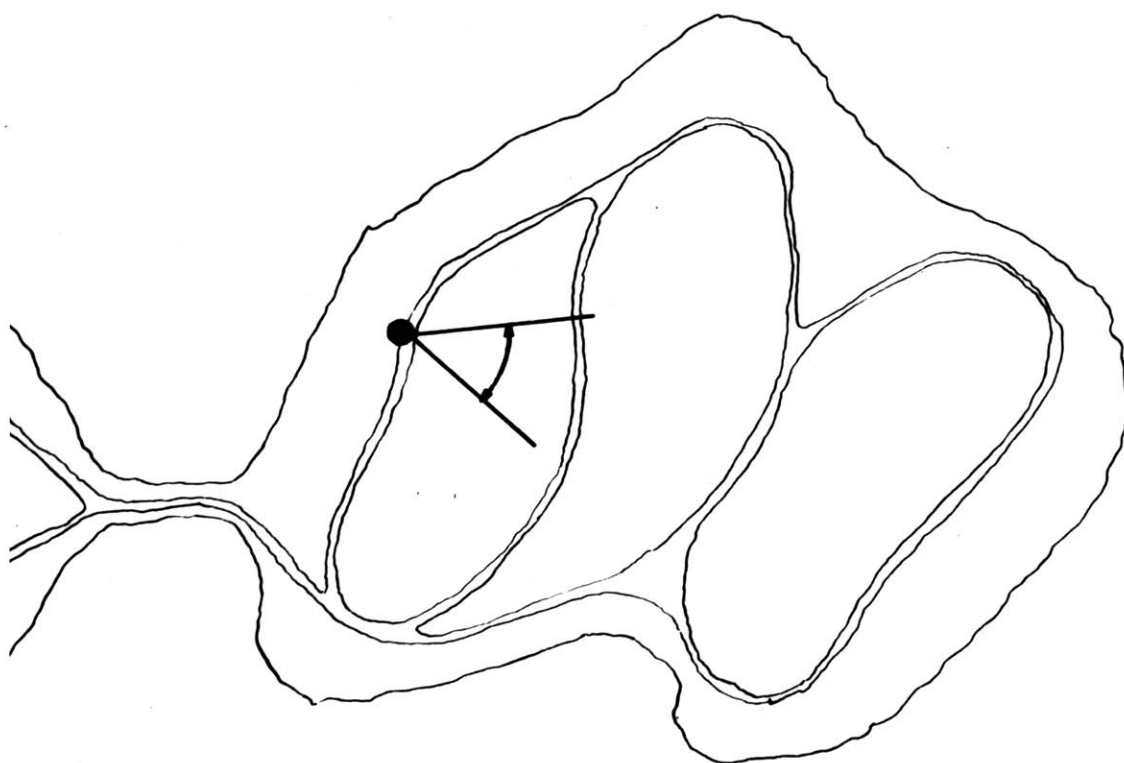


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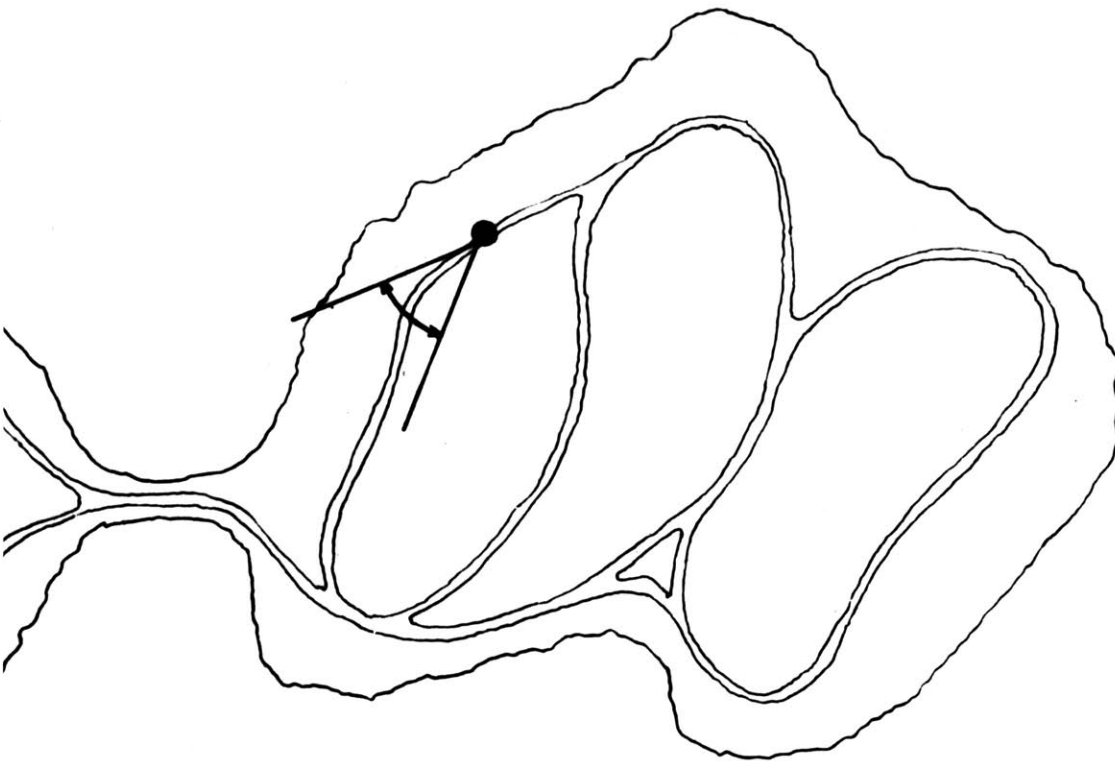


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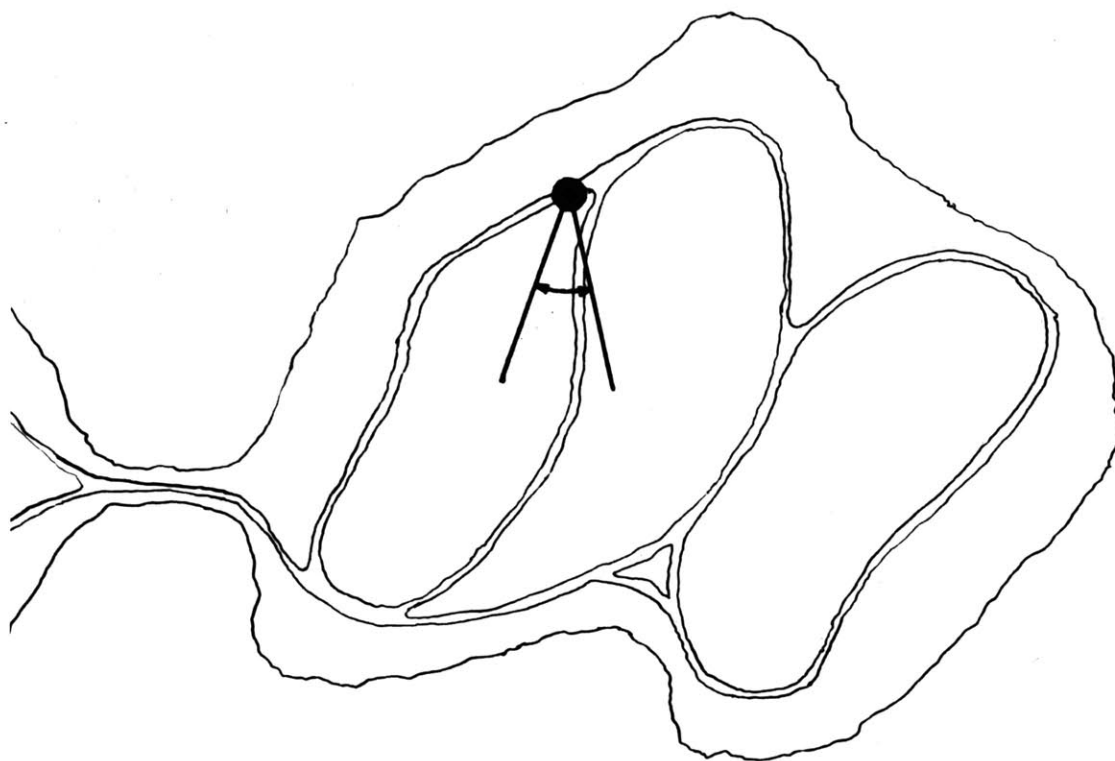


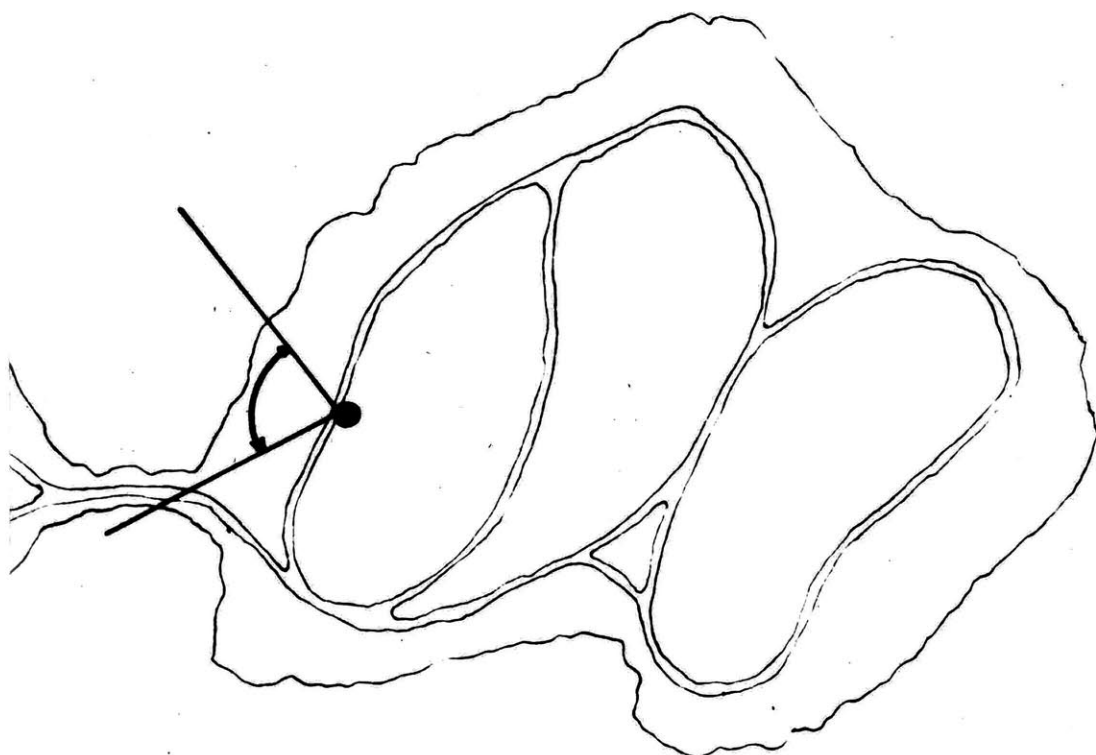
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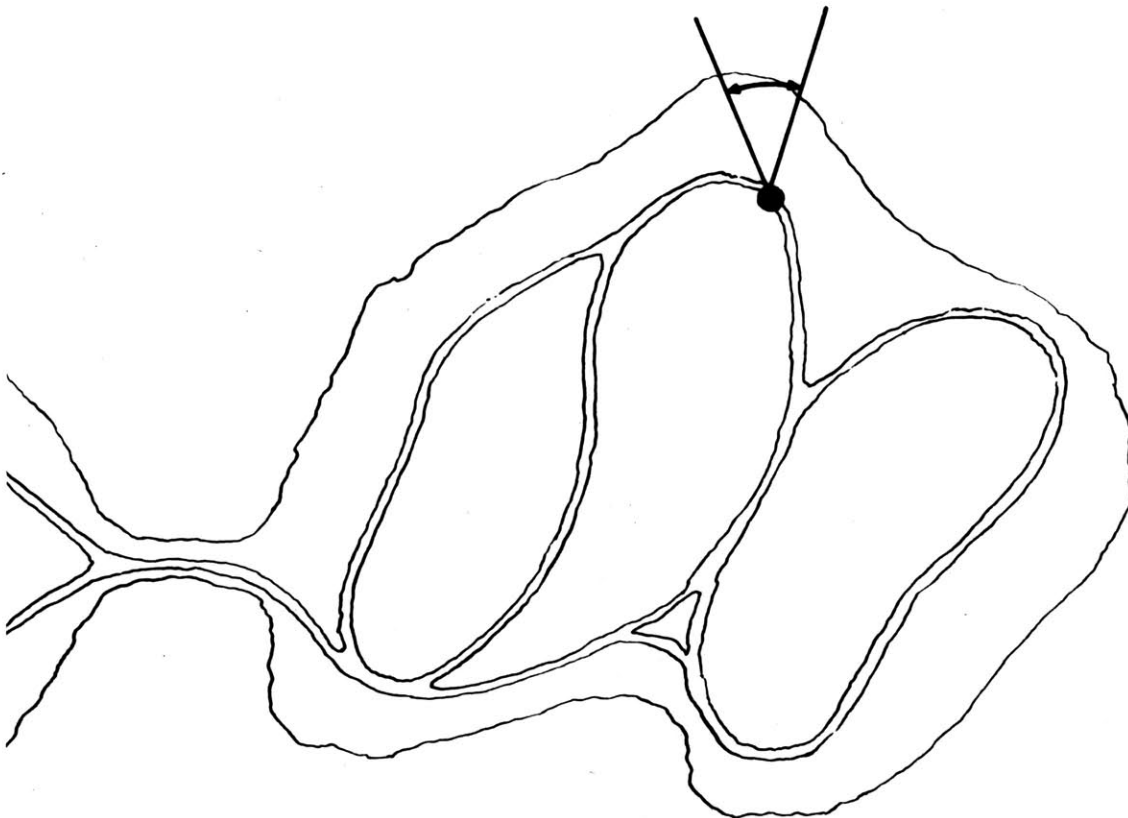
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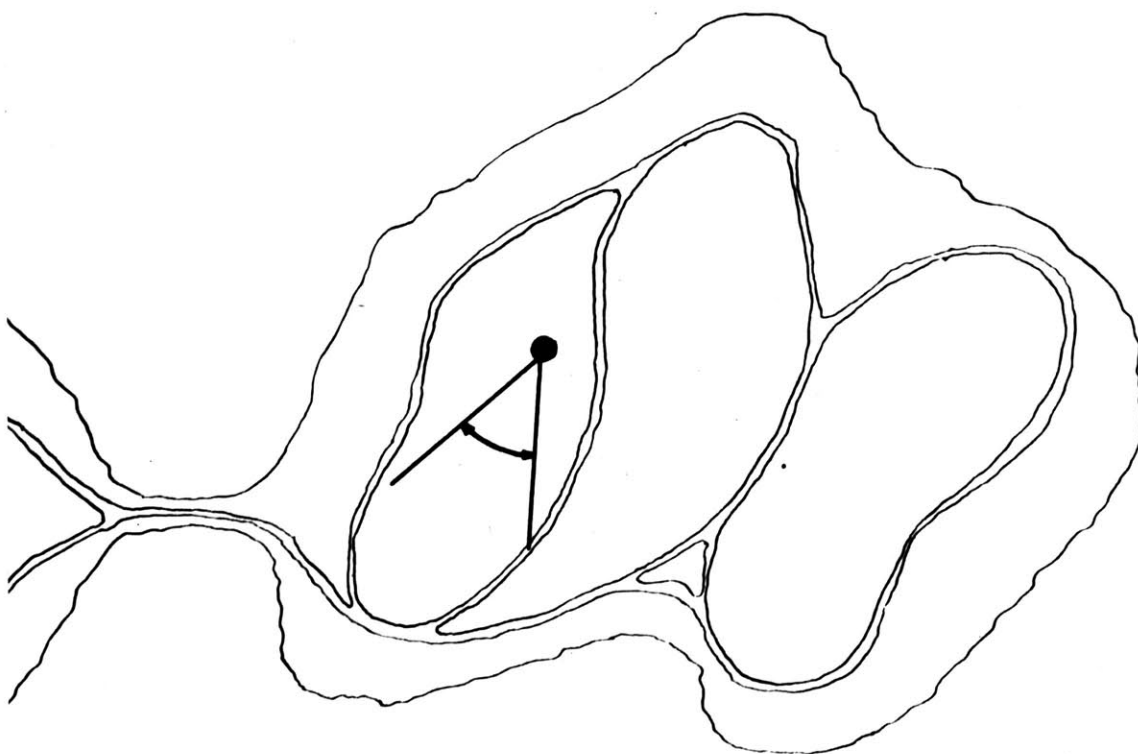


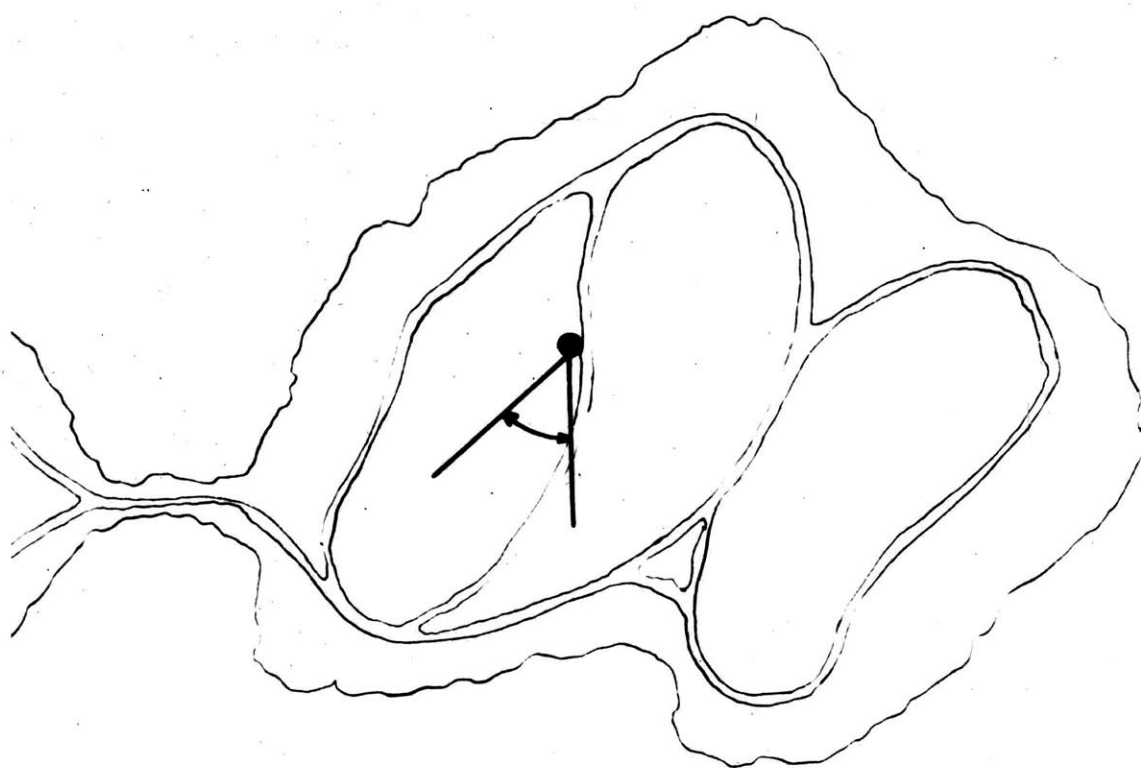
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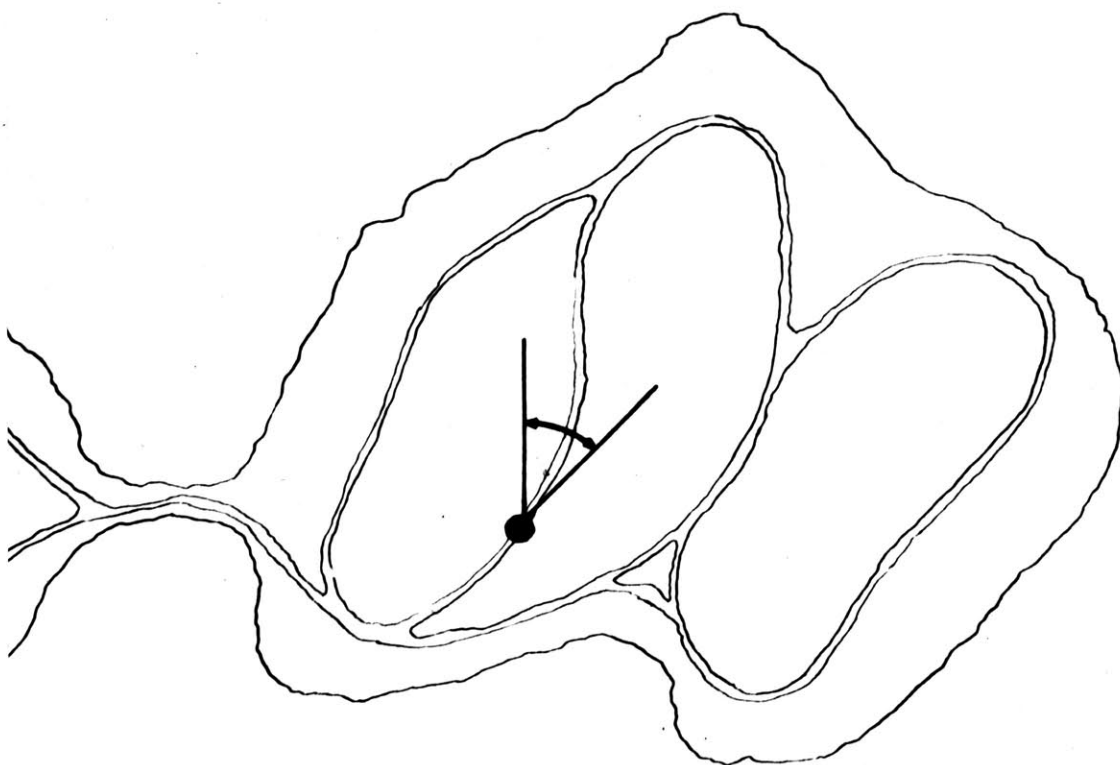
30.







32.



problem

The author has naturally run across the usual quandries, predicaments, and stumbling-blocks, in research work and design. However, he feels some bear notation. Significant information concerning the operational procedure in a crematorium is most difficult to come by; and what is gained is casual-in a complex state of flux. The circulation and relationships of areas in a proposed scheme then become hazy and the designer confused. Separation of family mourners from the congregation, serviceing, and administration, has been a most tedious problem with which to cope. The approach to the crematorium has been considered in great detail; the visual aspects and the psychological reactions resulting.

program

CHAPELS AND CREMATORIUM:

A large chapel seating 300 to 400 persons with

Family room - toilet

Choir and organ facilities

Public toilets

A small chapel seating 50 to 100 persons with

Family room - toilet

Choir and organ facilities

Public toilets

A vestry for the funeral directors with

Toilet

Storage

Waiting room-lounge

Urn delivery room

Committal chamber

Retorts - four

Work area with...

Attendant's office

Toilet

Storage

Utility and mechanical equipment space

Parking for.....

60 automobiles for chapel services

4 automobiles for waiting room-lounge

Space for few hearses near service area

ADMINISTRATION:

Waiting - lounge area

Public toilets

Reception and clerical office

Urn salesroom with urn storage space

Director's office - toilet

Fireproof record file room - expansion space

Utility space

Parking for 6 automobiles

COLUMBARIA:

Near chapels and urn-delivery room

Some degree of protection

AREAS FOR FOLLOWING GRAVE TYPES:

Marked graves

Graves with monuments of free standing type; regulated, but not strictly regimented. In tree groves; in the open; in some certain designated locations.

Graves with monuments incorporated into highly regulated incorporating elements such as walls receiving plaques, etc.; some in well defined and regulated blocks.

Lawn type burials with flush plaque markers.

Graves and monuments of famous or important persons in certain specially designated locations.

Special feature for graves of war dead (incorporated with a memorial feature).

Unmarked graves

Graves in certain areas whose exact locations are known only to the administration and are in no way marked.

Disposal area for the scattering of cremated remains.

MAINTENANCE BUILDINGS:

Garage (jeep, truck, power digger, and tractor)

Storage (mowers, equipment, tools)

Toilet

Utility space

Greenhouse with

Cold Frames

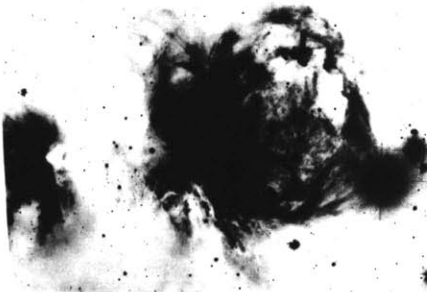
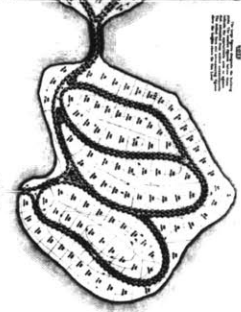
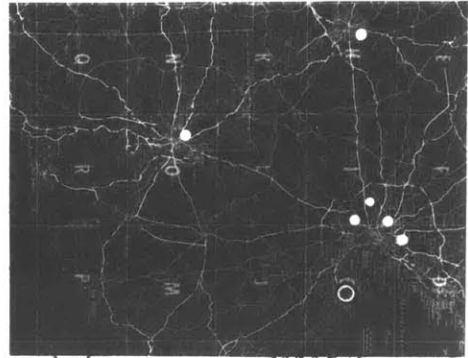
Piling and dumping areas for humus, fertilizer, compost.

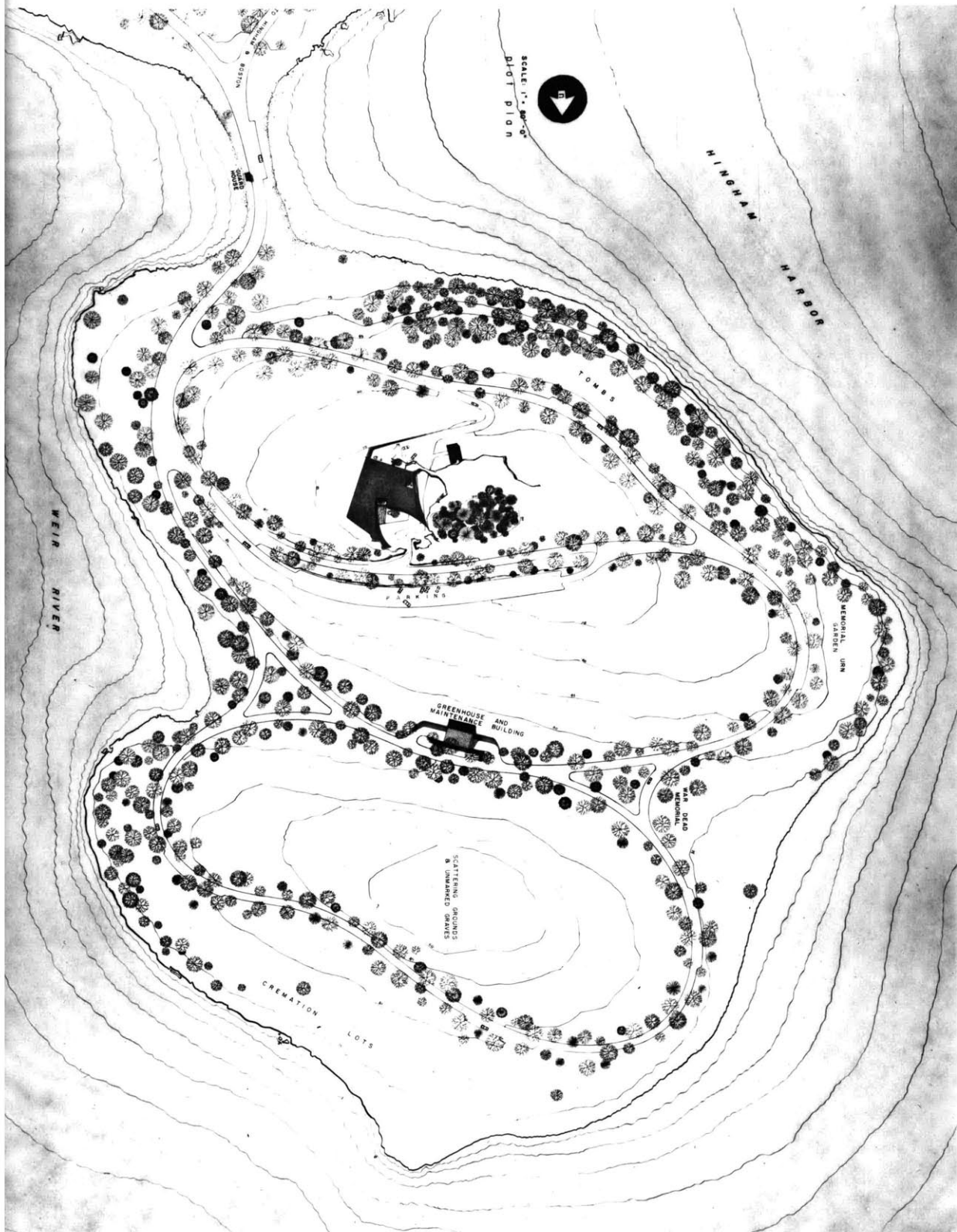
Piling areas for topsoil, turf, etc.

NOTE: The above program has been greatly influenced by the program proposal of J. Walter Roth in his thesis: "A Cemetery Proposal for Cooperating Municipalities", M. I. T., 1952.

design

A thorough exploitation of the site with Olmstead's landscaping playing a prominent role, make this crematorium fit into its site and environment, blending the man-made and the natural in symbolic harmony. Presenting the design after having given certain technical and organizational data, the complex functions that are composed into the massing becomes evident. Sunk into the flank of a rounded hill, hollowed out at the base of a cluster of conifers, an area is surrounded by dark grey stone retaining walls, embracing all the parts of the crematorium. Part of this area is protected under an ample simply sloped roof, covering the chapels, retorts, and all auxillary facilities; leaving an open space, itself of significant shape, to channel the leisurely flow of congregations on arrivals and departures. Simple flagged and gravel paths, and stone walls carry the work of man into the grove of trees, synthesizing the integration of man's contribution with the most significant feature of the quiet landscape.





crematorium w. b. hayward m. of arch. thesis 1955 MIT

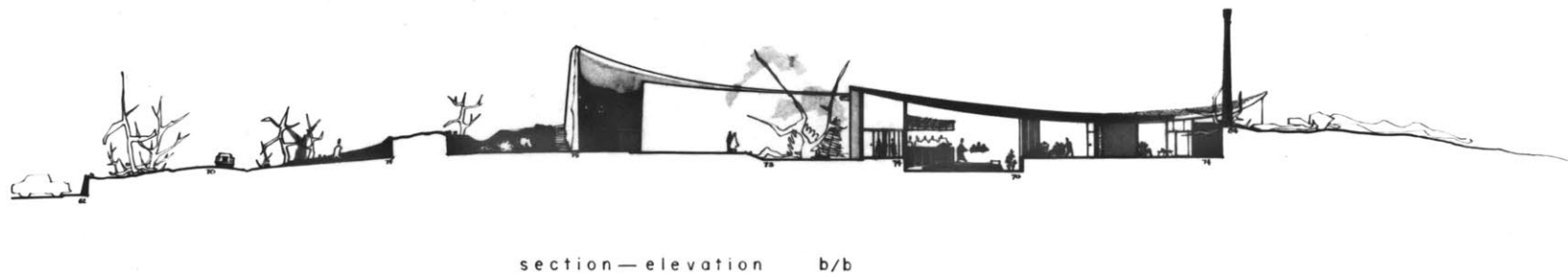
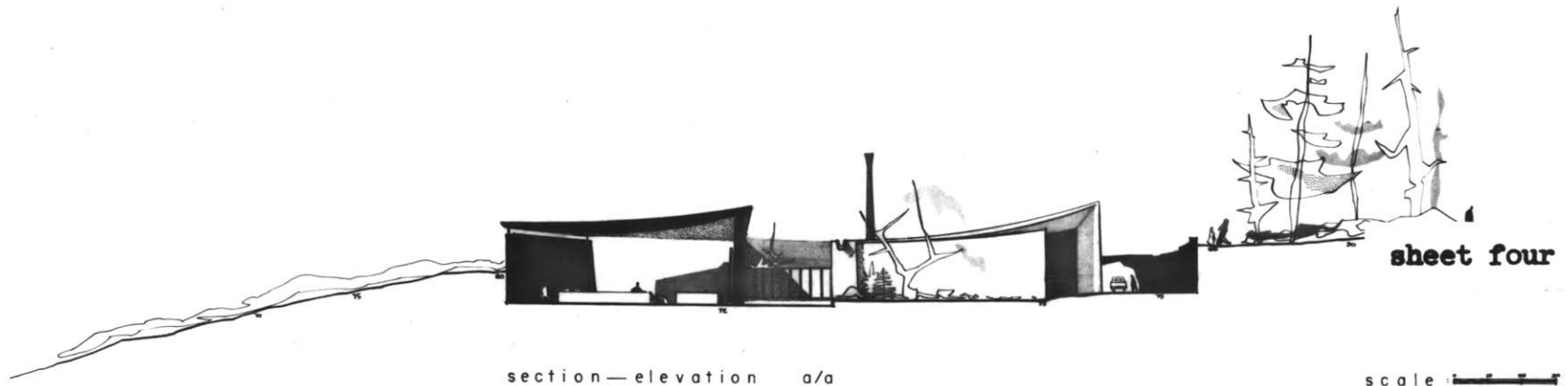
- 1- records
- 2- mail
- 3- clerical
- 4- utility
- 5- women's toilet
- 6- director's toilet
- 7- men's toilet
- 8- lounge-waiting
- 9- entrance
- 10- urn storage
- 11- urn salesroom
- 12- court
- 13- administration parking
- 14- family entrance
- 15- office
- 16- lounge
- 17- women's toilet
- 18- men's toilet
- 19- court
- 20- urn delivery
- 21- mail of wreaths
- 22- up to choir (above large family room)
- 23- pastor's closet
- 24- vestry
- 25- dressing
- 26- toilet
- 27- family lounge
- 28- powder room
- 29- toilet
- 30- family room
- 31- large chapel
- 32- security
- 33- up to balcony
- 34- women's toilet
- 35- men's toilet
- 36- entrance
- 37- service court
- 38- work room
- 39- storage
- 40- utility
- 41- restrooms
- 42- service entrance
- 43- storage
- 44- attendant's office
- 45- committal chamber
- 46- ramp down
- 47- work space
- 48- toilet
- 49- body preparation
- 50- catafalque
- 51- catafalque
- 52- family room
- 53- court
- 54- small chapel
- 55- security
- 56- choir
- 57- choir changing
- 58- men's toilet
- 59- women's toilet
- 60- entrance
- 61- garden
- 62- pool
- 63- court
- 64- belfry
- 65- unloading zone
- 66- main gate
- 67- columbarium

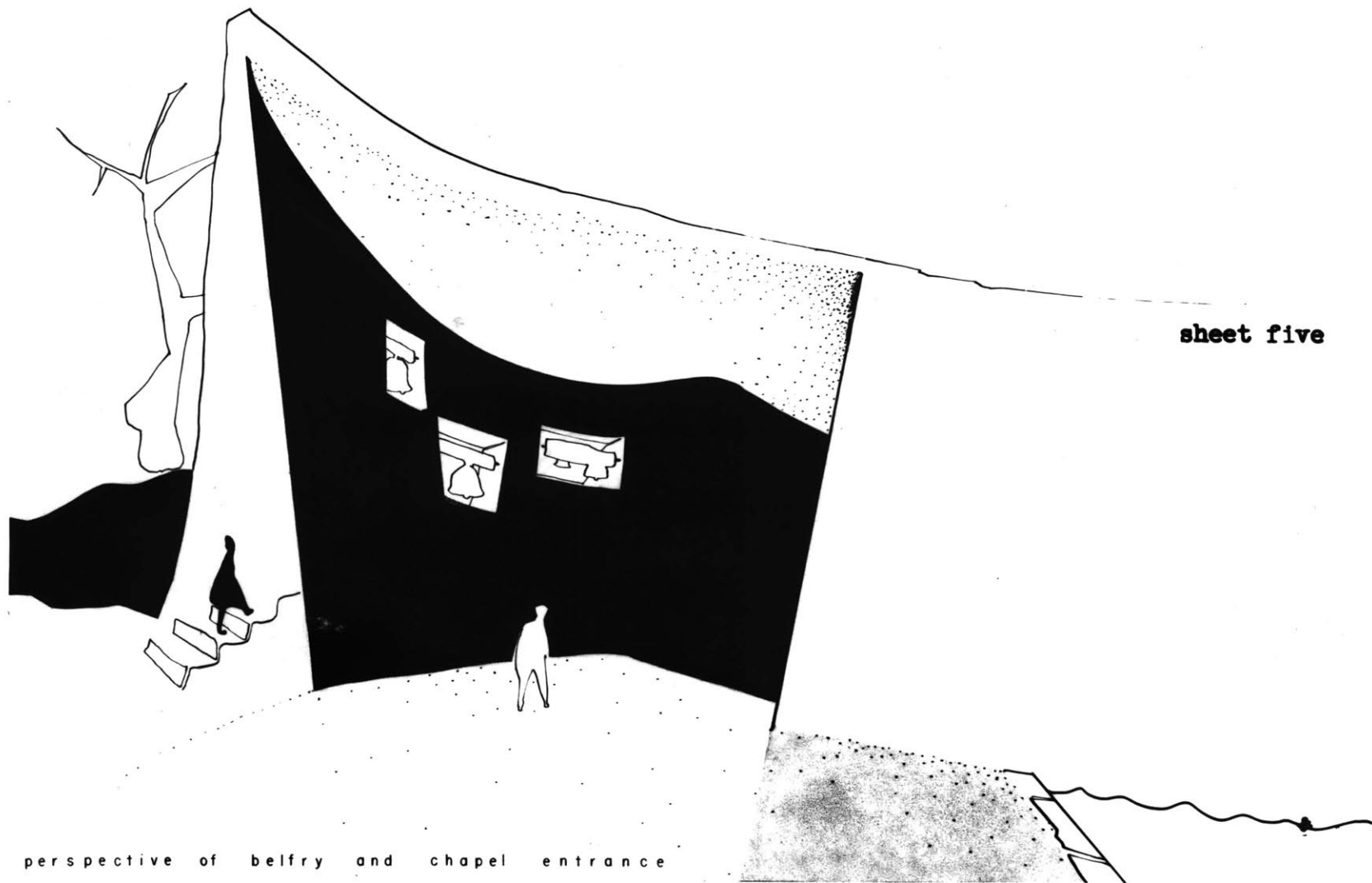
floor plan

scale: 

sheet three





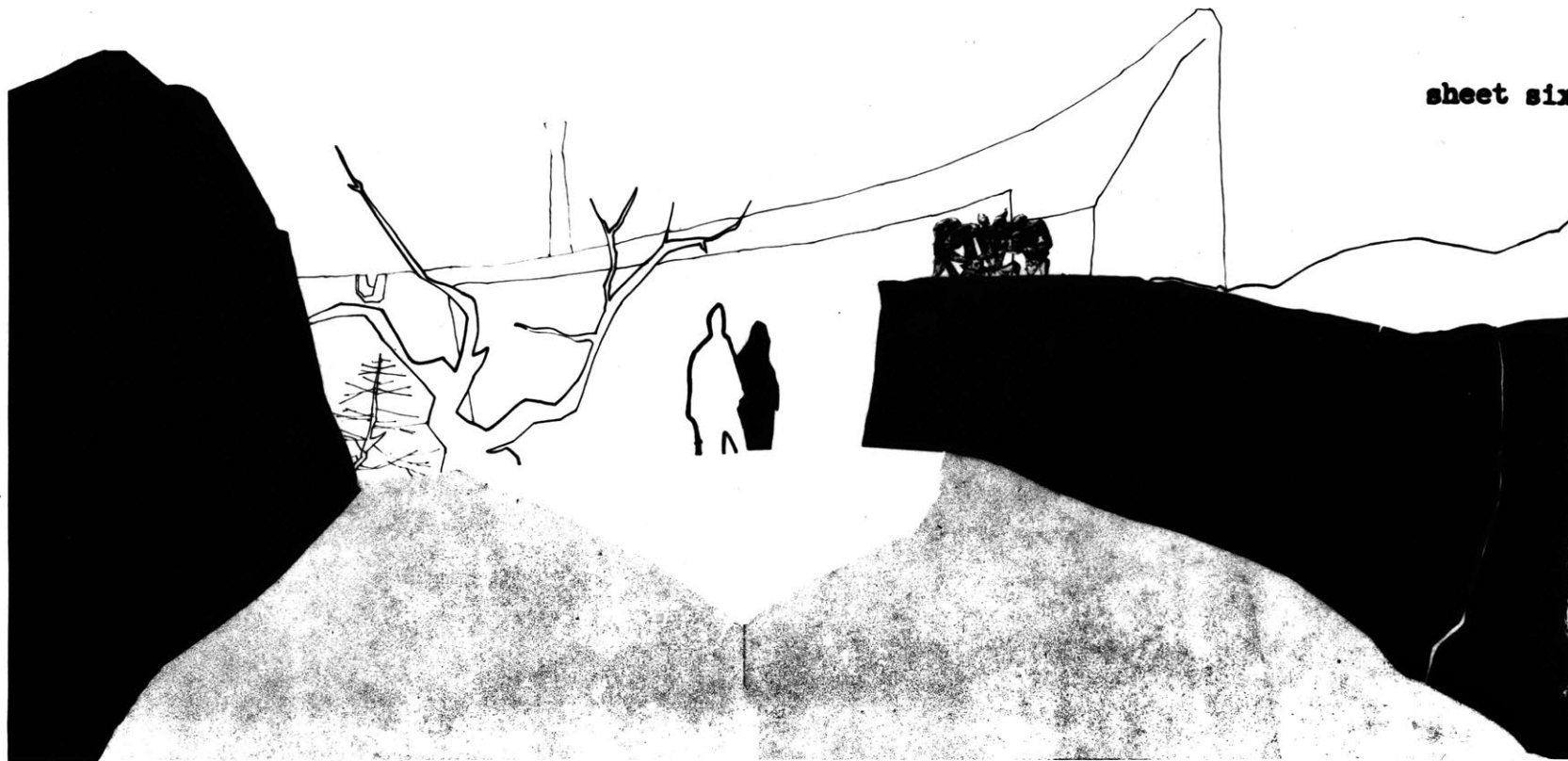


perspective of belfry and chapel entrance

crematorium w. b. b. hayward m. of arch. thesis 1955 MIT

perspective thru main gate

sheet six



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